

Senate Bill 76

Hydrogen Vehicle Acquisition

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Workshop Series 2005
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Overview

- Summary of Senate Bill 76 (SB 76)
- Funding and administration
- Vehicle selection concepts
 - ARB requirement concepts
 - Other concepts



Summary of SB 76 Vehicle Acquisition

- State of California to lease diverse fleet of up to 12 hydrogen-powered vehicles
- Purchase of up to two hydrogen internal combustion engine vehicles
 - Such as shuttle buses for use in university or airport shuttle operations
- Shall demonstrate viability and functionality of hydrogen as a transportation fuel and of hydrogen powered vehicle technology.
- Funding available until January 1, 2007
- Vehicle lease/purchase not tied to SB76 station RFP



Funding and Administration

- Up to \$1,000,000 for vehicle leases/purchases
- Vehicle selection for lease to be based on bids from a request for proposals (RFP)
- Purchase of 2 ICE shuttle buses to be through standard vehicle procurement
- Vehicle purchase and lease contracts must be executed by Dec 31, 2006
- ARB to sign contracts and loan vehicles to final user



Expected Vehicle Use

- ARB to enter into vehicle loan agreements with select entities for placement
 - Vehicle used for public demonstration
 - Expect high miles traveled
 - Planned use of renewable fuel stations
 - Have existing fleet with own maintenance
 - Will meet data collection and reporting requirements
 - Preference for siting in interested communities that are disproportionately impacted by air pollution



Public Input

- Seeking input on how to meet intent of SB 76
 - Lease 12 vehicles
 - Purchase two ICE passenger shuttle vehicles
- Seeking information on existing hydrogen vehicle fleet and how to assure a robust number of bids
 - Must be technically feasible
 - Available in near-term



ARB Requirement Concepts

- New (CVC Section 430) and available in near term
- On-road vehicle registered with DMV for use in California
- ARB certified to SULEV tailpipe emissions standard and no evaporative emissions
- Certified compliance with federal and state safety standards or appropriate experimental vehicle waiver
- Filler connection compatible with existing stations
- Vehicle manufacturer responsible for full cost and maintenance of vehicle for 36 months minimum
- Educational materials



Fuel/Energy Source Concept

- Hydrogen fuel cell (FC)
 - Hydrogen internal combustion engine (ICE)
 - Hybrid hydrogen/electric (FC or ICE)
 - Standard or with plug-in feature
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- May exclude the following:
 - Dual-fuel
 - Independent operation on two different liquid or gaseous fuel types such as hydrogen or gasoline
 - Bi-fueled
 - Concurrent operation on two liquid or gaseous fuel types such as hydrogen and CNG at same time



Vehicle and Technology Concepts

- Primary vehicle use type
 - Light duty passenger, cargo, shuttle bus
 - Full function, city use
- Fuel quality issues
- Driving range
- Original equipment manufacturer or aftermarket conversions
- Innovative technologies
 - Metal hydride storage, direct injection ICE, 10,000 psi compressed hydrogen, plug-in
- General fueling and usage data

